

# Inventions & Innovation Project Abstract

## An Indirect Route for Ethanol Production

The ZeaChem process is a radically new approach for producing fuel ethanol from renewable resources. Its cross-cutting method combines previously unrelated research with other industrially proven steps to create a route that enjoys a 50% yield advantage over existing commercial methods. Life cycle analysis shows that energy consumption savings in excess of 80% are achievable.

ZeaChem believes that the improvement in economics for the indirect route are so dramatic that widespread adoption will support a threefold expansion of the U.S. ethanol industry while eliminating or greatly reducing the need for future government subsidy programs. ZeaChem is facilitating a win-win situation in which U.S. farmers will enjoy a sustainable increase in corn prices with new markets being established for agricultural residues such as corn stover, while the country as a whole will enjoy the benefits of increased energy security provided by an economic and sustainable renewable energy supply.



### Contact

*ZeaChem, Inc.  
1613 Prospect Parkway  
Fort Collins, CO 80525*

*Contact: Tim Eggeman, Ph.D., P.E.  
Telephone: 303-358-6390  
Email: [time@zeachem.com](mailto:time@zeachem.com)  
[www.zeachem.com](http://www.zeachem.com)*



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Energy Efficiency and Renewable Energy